

12300

32960

S/125/62/000/001/007/011
D036/D113

AUTHORS: Safonnikov, A.N.; Medovar, B.I. (see Association); Kontorovich, L.Ye.; Khimushin, F.F. (Moscow)

TITLE: Electroslag welding of VZh100 (EP126 brand) iron-chrome-nickel heat-resistant alloy by a plate electrode

PERIODICAL: Avtomaticheskaya svarka, no. 1, 1962, 59-63

TEXT: The authors describe the technology developed for the electroslag welding of ВЖ100 (VZh100) (ЭП126 [EP126]) brand iron-chrome-nickel heat-resistant alloy by a plate electrode. This alloy, which contains less nickel than the ЭИ703 (EI703) alloy, is recommended for parts working at high temperatures and under considerable loads; the chemical composition is as follows: (in %) 0.04 C, 0.51 Si, 0.27 Mn, 19.6 Cr, 27.8 Ni, 4.78 W, 2.90 Mo, 1.05 Nb, 0.2 N, 0.008 B. The electroslag welding experiments were carried out with 90 x 90 mm forgings by means of 90 x 700 mm forged plate electrodes whose thickness varied from 12 to 35 mm. The welding conditions were as follows: welding current - 1,200-6,000 amps and 20-40 v, electrode feed - 0.9-5.0 m/hr, depth of slag pool - 10-22 mm. AHφ-6 (ANF-6), AHφ-7 (ANF-7)

Card 1/3

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DO36/D113

Electroslag welding of ...

and AH₆-14 (ANF-14) welding fluxes were tried. The butt-joint gap varied from 30 to 42 mm. Preliminary tests showed that welding with large currents and low voltages caused hot crystallization cracks to form in the weld metal. Increasing the voltage when welding with ANF-6 flux sometimes led to the appearance of slight cold shuts and slag inclusions in the weld metal and along the fusion line. Perfect welds were obtained with ANF-14 and ANF-7 fluxes under the following welding conditions: welding current - 1,500-1,800 amperes; electrode feed - 2-3.5 m/hr; idle-run voltage - 33 v; welding voltage - 30 v; gap - 36 mm; depth of slag pool - 22 mm; thickness of plate electrode - 12 mm. After heat treatment, the hardness of the weld metal approached that of the base metal. When a VZh100 electrode was used, the ultimate strength and yield limits of the weld metal at room temperature were 80% of the limits of the base metal; for extension and contraction this percentage was 50-60% and for toughness - 40%. At 650°C the ultimate strength of the weld metal was about 80% of that of the base metal, while the extension and contraction values of the weld metal approached those of the base metal. Tests for long-term heat-resistance showed that the weld metal was not inferior to the base metal in this respect. The conclusions made, are as follows:

Card 2/3

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DO36/D113

Electroslag welding of ...

lows: (1) A technology has been developed for the electroslag welding of VZh100 alloy. Cracks in the weld metal can be avoided only by adhering strictly to the welding conditions resulting in a relatively shallow and wide welding pool; (2) Hot cracks may appear in the weakness zone when welding VZh100 alloy. Further research is needed to establish the necessity of preliminary electroslag remelting of the base metal to eliminate this tendency; (3) The long-term heat-resistance of the welds is equal to that of the base metal. Technician B.R. Kleynerman took part in the tests. There are 4 figures, 3 tables and 1 Soviet reference.

ASSOCIATION: Ordona Trudovogo Krasnogo Znameni Institut elektrosvarki im Ye.O. Patona AN USSR (Electric Welding Institute "Order of the Red Banner of Labor" im.Ye.O. Paton of the AS UkrSSR)
(Safonnikov, A.N. and Medovar, B.I.)

SUBMITTED: March 16, 1961.

Card 3/3

ALFEROVA, N.S., doktor tekhn. nauk; BERNSHTEYN, M.L., kand. tekhn. nauk; BLANTER, M.Ye., doktor tekhn. nauk; BOKSHTEYN, S.Z., doktor tekhn. nauk; VINOGRAD, M.I., kand. tekhn. nauk; GAMOV, M.I., inzh.; GELLER, Yu.A., doktor tekhn. nauk; GOTLIB, L.I., kand. tekhn. nauk; GRDINA, Yu.V., doktor tekhn. nauk; GRIGOROVICH, V.K., kand. tekhn. nauk; GUIYAYEV, B.B., doktor tekhn. nauk; DOVGALEVSKIY, Ya.M., kand. tekhn. nauk; DUDOVTSOV, P.A., kand. tekhn. nauk; [deceased]; KIDIN, I.N., doktor tekhn. nauk; LEYKIN, I.M., kand. tekhn. nauk; LIVSHITS, B.G., doktor tekhn. nauk; LIVSHITS, L.S., kand. tekhn. nauk; L'VOV, M.A., kand. tekhn. nauk; MEYERSON, G.A., doktor tekhn. nauk; MINKEVICH, A.N., kand. tekhn. nauk; NATANSON, A.K., kand. tekhn. nauk; NAKHIMOV, A.M., inzh.; NAKHIMOV, D.M., kand. tekhn. nauk; OSTRIN, G.Ya., inzh.; PANASENKO, F.L., inzh.; SOLODIKHIN, A.G., kand. tekhn. nauk; KHIMUSHIN, F.F., kand. tekhn. nauk; CHERNASHKIN, V.G., kand. tekhn. nauk; YUDIN, A.A., kand. fiz.-mat. nauk; YANKOVSKIY, V.M., kand. tekhn. nauk; RAKHSHTADT, A.G., red.; GORDON, L.M., red. izd-va; VAYNSHTEYN, Ye.B., tekhn. red.

(Continued on next card)

ALFEROVA, N.S.--- (continued) Card 2.

[Metallography and the heat treatment of steel] Metallo-
vedenie i termicheskaja obrabotka stali; spravochnik.
Izd.2., perer. i dop. Pod red. M.L.Bernshtaina i A.G.
Rakhshadta. Moskva, Metallurgizdat. Vol.2. 1962.
1656 p. (MIRA 15:10)

(Steel—Metallography)
(Steel—Heat treatment)

KHIMUSHIN, Fedor Fedorovich; VINAROV, S.M., doktor tekhn. nauk, prof.,
retsenzent; ZILOVA, T.K., kand. tekhn. nauk, red.; ANTONOVA,
S.D., red.izd-va; ORESHKINA, V.I., tekhn. red.

[Alloying, heat treatment and properties of heat-resistant
steels and alloys] Legirovanie, termicheskaya obrabotka i svoi-
stva zharoprochnykh stalei i splavov. Moskva, Oborongiz, 1962.
(MIRA 16:3)

335 p.

(Heat-resistant alloys)
(Steel, Heat-resistant)

PHASE I BOOK EXPLOITATION

SOV/6382

Khimushin, Fedor Fedorovich

Legirovaniye, termicheskaya obrabotka i svoystva zhаропрочных стальей
i splavov (Alloying, Heat Treatment, and Properties of Heat-Resis-
tant Steels and Alloys) Moscow, Oborongiz, 1962. 335 p. Errata slip
inserted. 4050 copies printed.

Reviewer: S. M. Vinarov, Doctor of Technical Sciences, Professor; Ed.:
T. K. Zilova, Candidate of Technical Sciences; Ed. of Publishing
House: S. D. Antonova; Tech. Ed.: V. I. Oreshkina; Managing Ed.:
A. S. Zaymovskaya, Engineer.

PURPOSE: This book is intended for scientific and engineering personnel
of the machine and metallurgical industries.

COVERAGE: The book deals with the heat treatment of the heat-resistant
steels and alloys used in machine manufacture, the dependence
of mechanical and physical properties on conditions of heat treatments,
and the effect of alloying elements on heat resistance and

Card 1/9

Alloying, Heat Treatment, and Properties (Cont.)

SOV/6382

other properties. Fields of application of the most widely used heat-resistant steels and alloys are indicated, and problems related to the economical use of alloying elements are discussed. The author thanks D. Ye. Livshits, Ye. F. Trusova, N. F. Lashko, K. P. Sorokina, K. I. Terekhov, M. Ya. L'vovskiy, G. Ye. Moskalenko, T. M. Fedorova, A. A. Fedina, V. S. Kultygin, N. K. Kernich, M. A. Lyubinskaya, V. A. Kruzhkov, M. Ya. Dzugutov, A. V. Korobkov, L. N. Gazez'yan, D. Ya. Kagan, A. S. Nikishov, N. P. Polyakov, I. M. Mukhin, T. I. Ustinov, and Z. A. Shevankova for their assistance. References are given in footnotes.

TABLE OF CONTENTS:

Foreword	3
Introduction	5
Ch. I. Classification of Heat-Resistant Steels and Alloys and Problems of the Effect of Alloying Elements	9
Card 2/9	

AM4036344

BOOK EXPLOITATION

S/

Khimushin, Fedor Fedorovich

Stainless steels (Nerzhaveyushchiye stali). Moscow, Metallurgizdat, 1963. 600 p. illus., biblio. Errata slip inserted. 3900 copies printed.

TOPIC TAGS: steel, stainless steel, chromium steel, nickel steel, chromium nickel steel, complex alloy steel, oxidation resistant steel, heat resistant steel, precipitation hardenable steel, steel heat resistance, steel oxidation resistance, steel melting, steel welding

PURPOSE AND COVERAGE: This book is intended for engineering personnel of metallurgical and machine-building plants, oil refineries, and plants in other branches of industry. The book reviews the properties, corrosion resistance, uses, and technology of making stainless corrosion- and oxidation-resistant steels. Also discussed are the properties of new types of acid-resistant steels containing molybdenum and copper, which remain unaffected in sulfuric acid solutions and in various solutions of phosphoric acid used in

Cord 1/19

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manufacturing equipment . for preparing sulfuric and other acids.' No personalities are mentioned.

TABLE OF CONTENTS

Foreword -- 10

Introduction -- 11

PART I. CHROMIUM STEELS

Ch. I. Structure and phase composition of chromium steels --13
Iron-chromium system -- 13
The δ-phase in chromium and other alloys -- 17
Effect of alloying elements on the formation of the δ-phase -- 19
The δ-phase in other systems --21
Ch. II. Iron-chromium-carbon system -- 23

Card 2/19

L 10813-63 EWP(q)/EWT(m)/BDS--AFFTC/ASD--JD
ACCESSION NR: AP3C03442

5/3
S/0129/53/000/007/0005/0009

AUTHOR: Akshentseva, A. P.; Istrina, Z. F.; Khimushin, F. F.; Frolikova, Ye. M.

TITLE: Phase transformations and corrosion resistance of OKh2IN6M2T steel

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 7, 1963,
5-9

TOPIC TAGS: low-nickel stainless steels, ferritic-austenitic stainless steels, structural changes, corrosion resistance, intergranular corrosion, heat treatment, Sigma phase, corrosion rates, nitric acid, phosphoric acid

ABSTRACT: An investigation was made of the phase composition, weldability, and corrosion resistance of OKh2IN6M2T steel (0.07% C; 21.0% Cr; 5.68% Ni; 2.3% Mo; 0.47% Ti). In as-delivered condition (15-min annealing at 1000°C followed by water quenching), this steel has a ferritic-austenitic structure, containing up to 75% δ-ferrite. This structure, however, is not stable; at 500–1000°C the steel undergoes complex phase transformations. Tempering at Card 1/3

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ACCESSION NR: AP3003442

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500—550°C for 2 hr causes dispersion hardening of the ferrite and precipitation of chromium carbides along the grain boundaries; 2-hr tempering at 700—950°C brings about transformation of the ferrite into secondary austenite, with crystals of the latter forming inside the ferrite grains. Longer holding at 700—850°C promotes intensive growth of the secondary austenite crystals, which finally penetrate all the ferrite grains. At the same time, diffusion growth of the primary austenite grains takes place; cooling to room temperature brings about partial martensitic transformation within these grains. With longer holding (50 and 100 hr) at 650—850°C, the σ -phase precipitates within the ferrite grains, and the notch toughness of the steel drops from initial 6 to 0.5 kg-m/cm². Annealing at 750°C reduces the content of δ -ferrite to 45—55%. The structure with a ratio of δ -ferrite to secondary austenite of approximately 1:1 appears to be the most stable. When this steel is welded, regardless of the type of welding or the kind of electrode used, recrystallization of the base metal occurs in the weld-adjacent zone, with formation of large grains of δ -ferrite, along whose boundaries small crystals of secondary austenite form with cooling. The steel with a Ti/C ratio equal to or exceeding 5, after annealing at 1000°C, as well as after sensitizing annealing at 550—650°C for 2 hr, is not susceptible to intergranular corrosion in boiling 50%

Card 2/3

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ACCESSION NR: AP3003442

and 65% nitric acid or in boiling 50% phosphoric acid. The corrosion rate in phosphoric acid varied from 0.012 to 0.472 g/m²-hr (except for 2.11 g/m²-hr of specimens sensitized at 650C). Corrosion rates in 50% nitric acid after sensitizing at 500—700C were high (1.45—50.11 g/m²-hr). Stabilizing annealing at 700—1000C lowered corrosion rates to 0.192—0.583 g/m²-hr. Annealing the steel at temperatures above 1100C increases the ferrite content and lowers corrosion resistance, but tempering at 700C or above restores resistance to intergranular corrosion. In some media this steel has the same corrosion resistance as Krl8N12M2T Cr-Ni-Mo steel and is therefore recommended as a substitute for it. Orig. art. has: 7 figures and 1 table.

ASSOCIATION: NIIKhIMMASH

SUBMITTED: 00

DATE ACQ: 02Aug63

ENCL: 00

SUB CODE: 00

NO REF SOV: 002

OTHER: 001

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Card 3/3

L 14422-63
ACCESSION NR: AP3001117

EWP(k)/EWP(q)/EWT(m)/BDS AFTTC/ASD Pf-4 JD/HM
8/0125/63/000/007/0029/0033

69
(u)

AUTHOR: Safonikov, A. N.; Kantorovich, L. Ye. (Moscow); Khimushin, F. F. (Moscow)

TITLE: Electroslag welding of Kh10N20-type chromium-nickel steels (EI696, EI696A, EI696M) with a flat electrode /6 16 16 6

SOURCE: Avtomicheskaya svarka, no. 7, 1963, 29-33

TOPIC TAGS: EI696 steel electroslag welding, EI696A steel electroslag welding, EI696M steel electroslag welding, EI696 steel weldability, 10-20-type steel welding, EI696 steel weld properties, EI696 steel rupture life

ABSTRACT: Forgings of EI696 (90 x 90 mm), EI696A (90 x 90 mm), and EI696M (120 x 120 mm) chromium-nickel steels were electroslag-welded with forged flat electrodes made of the same steels and EI435 and EI437B alloys [AISI Nimonic 75 and Nimonic 80A, respectively]. The fluxes used were ANF-7 and ANF-14, containing respectively 1.2 and 14.9% silicon dioxide, 78.4 and 61.4% calcium fluoride, and 2.6 and 4.6% aluminum oxide. (Flux ANF-14 also contained 7.0% MgO.) In welding with the EI696M electrode, hot cracks occurred in the welds when high current and high welding speed were employed. Lack of fusion was noted with the use of

Card 1/3

L 14422-63

ACCESSION NR: AP3001117

the ANF-7 flux. Welds made with E1435 electrodes were flawless. The E1696M parent metal, the E1696M electrode used, and the weld metal obtained with ANF-7 flux had roughly the same composition: 0.04-0.06% C, 0.32-0.43% Si, 0.38-0.48% Mn, 11.20-11.47% Cr, 23.2-23.6% Ni, 1.35-1.53% Mo, 2.04-2.88% Ti, 0.35-0.70% Al, and 0.015-0.020% B. Welding caused a slight loss of Ti and Al. After annealing at 1170°C for 2 hr and aging at 750°C for 16 hr, the room-temperature tensile strength of the weld metal, 78.4-90.8 kg/mm², and of the welded joint, 76.8-78.2 kg/mm², were lower than that of the parent metal (86.8-104.7 kg/mm²). The corresponding figures for yield strength were 48.3-70.3, 48.0-48.8, and 62.4-70.2 kg/mm²; for elongation, 12.0-17.2, 14.8-15.3, and 20.8-26.0%; and for reduction of area, 16.4-31.2, 24.9-35.5, and 19.7-30.3%. At 700°C, the difference in properties was considerably less; the weld and the parent metal had, respectively, tensile strength of 72.6 and 69.2-76.0 kg/mm²; elongation of 5.6 and 10.2-20.8%; and reduction of area of 13.6 and 14.7-28.0%. Compared with the hardness of the parent metal (HB 260) the weld-metal hardness in the as-welded condition was much lower; however, it rose to 180-200 HB after heat treatment (the specifications call for HB 265). Welds made with the E1-37D electrode had a hardness of HB 220, which increased to HB 265 after heat

Card 2/3

L 1422-63

ACCESSION NR: AP3001117

3

treatment. In stress-rupture tests at 700°C, the joints welded with the EI435-alloy electrode had very poor heat resistance and rupture life under a stress of 30 kg/mm² was only 5 hr; the joints welded with the EI437B and EI696M electrodes under a stress of 40 kg/mm² had a rupture life of 65–76 hr and 152–201 hr (specifications call for 100 hr). Welding of EI696 and EI696A steels (which contain no molybdenum) produced sufficiently heat-resistant welds, provided the electrodes used were of the same composition as the steels being welded. The welds, however, were very susceptible to hot cracking, which could not be prevented by conventional means. It is possible that the weldability of these steels can be improved by the electroslag melting of the parent metal.

Orig. art. has: 4 figures and 3 tables.

ASSOCIATION: Institut elektrosvarki im. Ye. O. Patona
Institute, AN USSR)

AN USSR (Electric Welding)

SUBMITTED: 16Mar61

DATE ACQ: 02Aug63

ENCL: 00

SUB CODE: MA ML

NO ACQ: SCV: 001

OTHER: 000

Cited: 1/1

KHIMUSHIN, F. F.

L 41332-63 ENT(m)/EMP(c)/EMA(d)/EMP(t)/EMP(z)/EMP(b) Per LJP(c) AJW/
JD/HV/JG/18

ACCESSION NR: AR5000732

8/0277/64/00/009/0007/0007 32

SOURCE: Ref. zh. Mashinostroitel'nyye materialy, konstruktsii i
raschet detaley mashin. Gidroprivod. Otd. vyp., ts. 9.48.40

AUTHOR: Istrina, Z. F.; Krutnikov, A. N.; Shevel'shin, B. N.;
Shapiro, M. B.; Akhshentseva, A. P.; Khimushin, F. F.; Frolikova,
Ye. M.; Belinkiy, A. L.

TITLE: Corrosion resistant properties of chromium nickel steels
with lowered nickel content

CITED SOURCE: Tr. Vses. n.-i. i konstrukt. in-t khim. mashinostr.,
vyp. 45, 1963, 76-93

TOPIC TAGS: corrosion resistance, chromium nickel steel, nickel
containing alloy, metal corrosion/ steel OKh21N5, steel OKh21N6M2T,
steel OKh17N5G9AB, steel 1Kh16N9T, steel 1Kh16N12M2T

TRANSLATION: Results of an investigation of the structure, heat
treatment, weldability, pressure working, and corrosion resistance
of corrosion resistant steels with reduced nickel content and their

Card 1/2

L 41332-65
ACCESSION NR: AR5000732

welded joints are presented, and the field of application of these steels in the construction of chemical equipment is determined. Because of their corrosion resistance, steels 0Kh21N5T, 0Kh21N6M2T, and 0Kh17N5G9AB can be used as substitutes for steels 1Kh18N9T and 1Kh18N12M2T in a variety of corrosive media, for example, in the production of caprolactam, adipic acid, dimethylterephthalate, citric acid, urea, nitric acid, and others.

SUB CODE: MM ENGL: 00

Card 2/2 ✓

10/10 RPA(8)-2/WT(m)/EPF(1)-2/WA(+) 10/10/1986
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N NR AMG002652

RE K. K. P. 10/10/1986

3'

A. Fedor Fedorovich

heat-resistant steels and alloys ("Heat-resistant steels and alloys", "Metallurgiya", 1964, No. 12, p. 10),
"Metallurgiya", 1964, No. 12, p. 10),
series printed.

"VGB: heat-resistant steel, heat-resistant alloy, heat-resistant alloy,
heat-resistant steel, iron base al., heat-resistant steel, heat-resistant alloy,
titanium-molybdenum base al., heat-resistant steel, heat-resistant al.,
heat-resistant steel, heat-resistant alloy, heat-resistant alloy, heat-resistant alloy,

PURPOSE AND COVERAGE. This book is a detailed examination of the mechanical properties of heat-resistant steels and alloys at temperatures up to 1600° F. The effect of alloying elements on the strength, ductility, and other properties of these alloys is discussed. Heat treatment, hot pressure working, and alloy composition. Heat-resistant alloys based on iron, nickel, and cobalt are described. Data are included on resistance of these alloys to gas and liquid environments. Experience in the use of scale-resistant and heat-resistant coatings is also described. Attention is also given to the principal factors in the design of heat-resistant steels and alloys. The book is intended for engineers and researchers in the field of metallurgical,

Page 1/5

200-25

REF ID: A65002553

aviation, and machine and instrument building industries. It can also be useful to students in higher educational institutions.

TABLE OF CONTENTS [abridged]:

Foreword -- 9
Introduction -- 11
Part 1. Classification and properties of heat-resistant materials
Ch. I. Classification of steels and alloys -- 17
Ch. II. Mechanical properties of alloys at high temperatures -- 22
Structure and heat resistance
Effect of grain size on the mechanical properties -- 14
Effect of preliminary plastic deformation on heat resistance -- 15
Effect of alloying elements on the heat resistance of austenitic steels -- 163
Part 2. Heat-resistant and scale resistant steels
Ch. VII. Heat-resistant steels with carbide strengthening -- 182
Effect of heat treatment on the heat resistance of steels -- 18
Properties of some heat-resistant steels -- 182

2/5

DITION NR AM5002553

- * Chromium-nickel austenitic steels of high heat-resistance -- 217
 - Properties of some heat-resistant austenitic steels -- 218
 - Hardening -- 236
 - Properties of chromium-nickel austenitic stainless steel and heat-resistant steels -- 257
- * Heat-resistant steels with intermetallic strengthening -- 262
 - Properties of some heat-resistant steels -- 263
- * Cast heat-resistant steels -- 314
- Scale-resistant and heat-resistant nickel-base alloys
 - Heat-resistant nickel-base alloys -- 315
 - Manganese-molybdenum and nickel-chromium-molybdenum alloys -- 356
 - Heat-resistant nickel-base alloys -- 357
 - Properties of nickel-base heat-resistant alloys -- 358
 - Foreign nickel-base heat-resistant alloys -- 359
 - Cast nickel-base heat-resistant alloys -- 360
 - Foreign cast nickel-base heat-resistant alloys -- 361
- Heat-resistant cobalt-base alloys
- XIII, Cobalt and cobalt-base heat-resistant alloys -- 472
 - Cast cobalt-base heat-resistant alloys -- 473
 - Chromium-nickel-cobalt-iron alloys -- 474

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ACCESSION NR AM5002553

- 1. LXVI. Physical properties of heat-resistant steels and alloys -- 502
 - a. Corrosion and heat resistance of steels -- 502
 - b. Properties of heat treatments of heat-resistant steels and alloys at temperatures -- 502
- 2. LXXI. Corrosion of metals and alloys in gas media at high temperatures -- 514
- 3. LXXII. Effect of alloying elements on the temperature strength of steels -- 529
- 4. LXX. Heat resistance of nickel and nickel-base alloys -- 542
 - a. Heat resistance of cobalt and cobalt-base alloys -- 542
 - b. Effect of a gas medium on the heat resistance of alloys -- 542

alloys -- 580

Ch. XXXIII. Corrosion of metals and alloys at high temperatures in liquid metal media -- 618

Ch. XXXIII. Effect of radiation on the strengthening and weakening of heat-resistant steels and alloys -- 42

Ch. XXXIII. Production of heat-resistant alloys

Ch. XXXIII. Melting and working heat-resistant alloys
Ch. XXXIII. Metallography -- 656

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Y.GOV: 296

AT GPO: 17

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"APPROVED FOR RELEASE: 09/17/2001

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KHIN, Antal

Heating of laboratories. Magy ep ipar 11 no.7307-309 '62.

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CIA-RDP86-00513R000722020005-3"

KHIN, Antal

Primitive fishing implements. Elet tud 19 no.3:111-114
17 Ja '64.

KHIN, LASZLO
HUNGARY/Analytical Chemistry - Analysis of Inorganic
Substances

E-2

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46399
Author : Gyorgy Szasz, Laszlo Khin, Maria Zacska
Inst : -
Title : Separation of Bivalent and Trivalent Iron by Chromato-
graphy on Paper Method.
Orig Pub : Acta pharmac. hung., 1957, 27, No 6, 257-262

Abstract : The method of chromatographic separation of Fe^{2+} and Fe^{3+} without the application of inert gas atmosphere and other precautionary measures is described. The mixture n-butyl alcohol - 35%-ual HCl - water (50 : 5 : 15) is used as the solvent; the paper "Macherey-Nagel 214" is purified first of Fe admixtures using the same solvent. The chromatography is carried out 8 to 9 hours at 18 to 22°. Na_2S is used as the coloring reagent; the Fe^{2+} spot is greenish-black, and the Fe^{3+} spot is gray-black.

Card 1/2

KHIN,

COUNTRY : Hungary H-17
 CATEGORY :
 ABS. JOUR. : RZKhim., No. 21 1959, No. 75810
 AUTHOR : Szasz, G., Zacska, M., and Khin, L.
 INSTIT. : Not given
 TITLE : The Determination of Carbamide in Ethylurethan
 ORIG. PUB. : Acta Pharmac Hung, 28, No 1-2, 60-65 (1958)
 ABSTRACT : The urethan is extracted with CHCl₃ from an aqueous solution and the carbamide is determined colorimetrically in the aqueous layer with p-dimethylaminobenzaldehyde. The method described permits the determination of 0.1% carbamide.
 F. Raytsev
 CARD: 1/1

KHIN,

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020005-3
 COUNTRY : HUNGARY
 CATEGORY : Chemical Technology. Chemical Products and Their Application. Pharmaceuticals. Vitamins. Antibiotics
 ABS. JOUR. : RZKhim., No 17, 1959, No. 61853
 AUTHOR : Szasz, G; Khin, L.; Takacs, M.; Zacska, M.
 INSTITUTE : -
 TITLE : Separation of Medicinal Mixtures by the Chromatographic on Paper Method.
 ORIG. PUB. : Acta pharmac. hung., 1958, 28, No 5-6, 219-228
 ABSTRACT : Through investigations it was established that certain compounds, for example amidazophen (I), acetylsalicylic acid (II), luminal (III), phenacetine (IV), giving with the Partridge's solvent (butanol-water-glacial acetic acid, see Biochem. J., 1948, 42, 238) very close values of R_f , separate well of salts. Values of R_f for I and II are 0.89 and 0.94 respectively, if, however, a drop, of HgPO₄ or HCl is added to I then its R_f changes considerably (up to 0.41 and 0.54). Based on *tics.

Card: 1/2

L 23874-66 EWT(1) AT

ACC NR: AP6009853

SOURCE CODE: UR/0413/66/000/004/0048/0048

AUTHOR: Traube, L. V.; Zubov, G. G.; Lebedev, S. N.; Khin, L. S.

.27

B

ORG: none

TITLE: An electron gun. Class 21, No. 178911 [announced by L'vov Vacuum Tube Plant
(L'vovskiy elektrolampovyy zavod)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 4, 1966, 48

TOPIC TAGS: electron gun, vacuum tube

ABSTRACT: This Author's Certificate introduces: 1. An electron gun with a bipotential focusing lens. The gun consists of a cathode assembly and modulator with accelerating, focusing and anode electrodes in the form of cylinders with the same diameter. The overall dimensions are reduced and the design and construction are simplified to permit automation in assembly by using a ratio of 1:1:1:1 for the dimensions of the cylinders which form the modulator and the accelerating, focusing and anode electrodes in the axial direction. 2. A modification of this electron gun in which the modulator and the focusing, accelerating and anode electrodes are made in the form of rings. Diaphragms of equal size are fastened in the modulator and accelerating rings.

UDC: 621.3.032.269.1

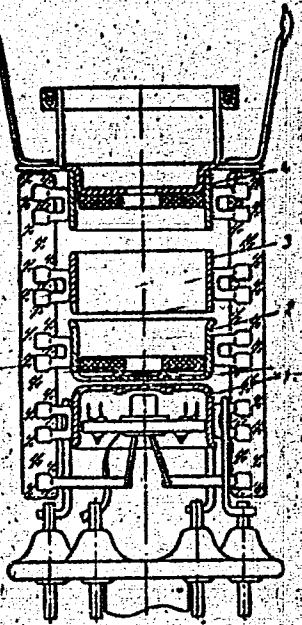
Card 1/2

Z

L 23874-66

ACC NR: AP6009853

0



1--modulator; 2--accelerating electrode;
3--focusing electrode; 4--anode

SUB CODE: 09/

SUBM DATE: 24Dec63/

ORIG REF: 000

OTH REF: 000

Card 2/2a

KHILIVITSKAYA, M.I.; KHIM, L.Yu.; POKOTINSKAYA, L.A.

Prognosis in myocardial infarction; late observations. Terap.arkh.,
27 no.2:3-15 '55. (MLRA 8:7)

1. Iz kardiologicheskogo sanatoriya VTSSPS v Leningrade (glavnyy
vrach B.N.Vvedenskiy).
(MYOCARDIAL INFARCT,
progn.)

MIRONOV, D.P.; KHIN, N.N.; ZHARKOV, V.V.; PROKOF'YEVA, M.V.;
SHULAYEV, N.P.

Preparation of butyric anhydride by the reaction of butyric acid
with acetic anhydride in a continuous fractionating column.
Zhur. prikl. khim. 38 no. 10:2309-2312 C 65. (MIRA 18:12)

I. Vladimirs'kiy nauchno-issledovatel'skiy institut sinteticheskikh smol. Submitted Sept. 3, 1963.

KHINA, M.S.
BELYAYEV, N.V.; KHINA, M.L.

Using high-frequency heating for hardening semiaxles of the rear
axle. Avt.i trakt.prom. no.10:29-31 O '57. (MIRA 10:12)

1. Moskovskiy zavod malolitrazhnykh avtomobiley.
(Automobiles--Axles--Hardening) (Induction heating)

S/032/61/027/001/037/037
B017/B054

AUTHOR: Khina, M. L., Assistant Chief Metallurgist

TITLE: At the Central Laboratory of the Moscow Plant of Light Cars

PERIODICAL: Zavodskaya laboratoriya, 1961, Vol. 27, No. 1, pp. 122-123

TEXT: A new steel grade, ЭИ 48 (EP48), has been developed by the Tsentral'nyy nauchno-issledovatel'skiy avtomobil'nyy institut (NAMI) (Central Scientific Research Institute of Cars (NAMI)) for the construction of cars. A special chrome-nickel-molybdenum alloy was used for the pistons. In cooperation with the Institut tsvetnykh metallov i zolota (Institute of Nonferrous Metals and Gold), a new eutectic or supereutectic alloy for pistons has been developed. The process of gaseous cyanation of parts for the Moskvich light car was completely worked out. To increase the efficiency of copper and nickel coats for car parts, a new method was developed to recover copper from copper-containing electrolytes. Together with the Institut NIITAVTOPROM (Technological Scientific Research Institute of the Automobile Industry), research work was conducted to

Card 1/2

At the Central Laboratory of the
Moscow Plant of Light Cars

S/032/61/027/001/037/037
B017/B054

increase the number of powder-metallurgical parts for the "Moskvich". Investigations and measurements concerning the application of 5KhFC (5KhGS) steel for hot dies were concluded at the Moscow Plant. Investigations for the production of brilliant nickel coats have also been concluded. There is a lack of personnel since wages for co-workers in industrial laboratories have not yet been fixed.

ASSOCIATION: Moskovskiy zavod malolitrazhnykh avtomobiley (Moscow Plant of Light Cars)

Card 2/2

KHINCHEV, I.

"Using the water from the upper water layers of dams for irrigation."

p. 82, (Khidrotehnika I Melioratsii, Vol. 3, no. 3, 1958, Sofia, Bulgaria

Monthly Index of East European Accessions (EEAL) LC, Vol. 7, No. 12, Dec 58.

KHINCHEV, I. V.

Khinchev, Iv. - Zimni raboti v stroitelstvoto. (Sofiya) Nauka i izkustvo (1952)
48 p. (Winter construction. Illus.)

SO: Monthly List of East European Accessions, Library of Congress, Vol. 2, No. 9,
Oct. 1953, Uncl.

KOTSYUBINSKIY, O.Yu.; KHINCHIN, A.S.

Method for determining thermal conductivity and total heat capacity in solids and granular bodies as functions of temperature. Inzh.-fiz.zhur. no.11:125-129 N'58. (MIRA 12:1)

1. Eksperimental'nyy nauchno-issledovatel'skiy institut metallo-rezushchikh stankov, g. Moskva, i Nauchno-issledovatel'skiy institut liteynogo mashinostroyeniya i liteynoy tekhnologii, g. Moskva.

(Heat--Conduction) (Heat--Capacity)

BERG, P.P.; KHINCHIN, A.S.

Temperature dependence of thermophysical constants of a molding mixture. Inzh.-fiz. zhur. no.3:49-53 Mr '60. (MIRA 13:10)

1; Avtomobil'no-dorozhnyy institut i Institut liteynogo mashino-stroyeniya i liteynoy tekhnologii, Moskva.
(Sand, Foundry—Thermal properties)

EHINCHIN, Aleksandr Yakovlevich

DECEASED 1959

1962/

7

Mathematics

see IIC

KHINCHIN, A.Ya. (Moskva)

Educational influence of mathematics lessons. Mat.pros. no 6:7-28
'61. (MIRA 15:3)
(Mathematics--Study and teaching)(Thought and thinking)

KHINCHIN, A.Ya. (Moskva)

So-called "intelligence problems" in the arithmetic course, Mat.
pros. no.6:29-36 '61. (MIRA 15:3)
(Arithmetic--Problems, exercises, etc)

39905

16.6100

S/052/62/007/003/003/004
C111/C333AUTHOR: Khinchin, A. Ya.

TITLE: On the Erlang formulas in the theory of mass service

PERIODICAL: Teoriya veroyatnostey i yeye primeneniye, vol. 7, no. 3,
1962, 330-335

TEXT: This paper was found among the works of A. Ya. Khinchin after his death and must have been written in the period from 1954-1956. The following problem is considered: A stationary Poisson series of calls with the intensity λ comes into a switchboard with n connections. If, at the time a call comes in all connections are busy, then the call is lost. The distribution of the service time $F(x)$ with the finite first moment

$s = - \int_0^\infty x dF(x)$ is considered arbitrary. It is proven in the paper that the probability that k connections are busy at the time t converges for $t \rightarrow \infty$ to

$$[k] \quad \frac{(\lambda s)^k}{k!} \left\{ \sum_{j=0}^n \frac{(\lambda s)^j}{j!} \right\}^{-1} \quad (1 \leq k \leq n)$$

Card 1/2

On the Erlang formulas in the . . .

S/052/62/007/003/003/004
C111/C333

The method used represents a further development of an idea previously
used by K. Lundquist (Ref. 3: Ericsson Technics, 2 (1953), 111-140)

SUBMITTED: November 24, 1960

f

Card 2/2

KHINCHIN, A.Ya. (Moskva)

Educational influence of mathematics lessons. Mat. v
shkole no.3:30-44 My-Je '62. (MIRA 15:7)
(Mathematics—Study and teaching)

KHINCHIN, A.Ya.

Erlang's formulas in the queueing theory. Teor. veroiat.
i ee prim. 7 no.3:330-335 '62. (MIRA 15:7)
(Queueing theory)

GNEDENKO, Boris Vladimirovich; KHINCHIN, Aleksandr Yakovlevich;
GORYACHAYA, M.M., red.

[Elementary introduction to the theory of probability]
Elementarnoe vvedenie v teoriyu veroyatnostei. Izd.6.
Moskva, Nauka, 1964. 142 p. (MIRA 18:5)

KHINCHIN, L.M.

A fundamental improvement is needed in preparing metal scrap
for remelting. Metallurg 9 no.9:1-3 S '64.

(MIRA 17:10)

1. Glavnoye upravleniye po mezhrespublikanskim postavkam
metalloproduktsii pri Gosplane SSSR.

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722020005-3

KHINCHIN, P.Ya., inzhener.

Precast reinforced concrete poles for hot-air heating systems.
Stroi.prom. 34 no.4:22-23 Ap '56. (MLRA 9:8)
(Pipelines)

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722020005-3"

SOROKIN, M.F.; LYALYUSHKO, K.A.; KHINCHINA, E.L.

Synthetic resins derived from aryl glycidic esters. Report No.3:
Synthesis of resins derived from aryl diglycidic esters and
incomplete glycerides of tung-oil fatty acids. Lakokras. mat.
i ikh. prim. no.4:6-11 '61. (MIRA 16:7)

(Resins, Synthetic) (Tung oil)

SOROKIN, M.F.; KHINCHINA, E.L.

Synthesis of copolymers of allyl glycidyl ether and methyl-methacrylate. Lakokras.mat.1 1kh prim. no.5:10-17 '62.

(MIRA 16:1)

(Ethers) (Methacrylate) (Polymers)

SROKIN, M.F.; KHINCHINA, E.L.

Synthesis of copolymers of glycidyl methacrylate with vinyl acetate. Lakokras.mat.i ikh prim. no.1:10-15 '63. (MIRA 16:2)
(Methacrylic acid)
(Vinyl acetate polymers)

SOROKIN, M.F.; KHINCHINA, E.L.

Synthesis of allyl glycidyl ester and butyl methacrylate copolymers.
Lakokras. mat. i tekhn. prim. no.4:5-10 '63. (MIRA 16:10)

L 250E5-55 EWT(m)/EPF(c)/EWP(j)/T Pe=4/Pr=4 RM

5 / 03/03 / 64 / 000 / 006 / 1001 / 00024

Hin, M. S.; Khinchina, E. L.

15

Coatings based on polyesters of mono-epoxy compounds and vicarboxylic acids

Лакокрасочные материалы и их применение, no. 6, 1964. 1-4

polyester coating, polymer coating, monomer, crosslinker, dicarboxylic acid, curing hardness, coating elasticity, epoxy resin, bisglycidyl ether.

RESULTS: A series of tests were carried out on the physical and chemical properties of coatings based on synthetic polyesters and E-40[®] epoxy resin, as well as on inductive linear polyesters from allylglycidyl ether with it carboxylic acids. Solutions of polyesters and E-40 resin were mixed with equal parts of acetone and butyl alcohol to form mixtures which can be kept for a long time at room temperature without solidification. After 1 month they are solidified at 50 K. A multi-page table lists the results of the tests of their adhesion, thickness, etc.

L 25065-65

APPROV. NR. AP5002211

Impact toughness. Those with E-40 and phenylglycidol or mixed phenols had a value of 0.7 to 0.9, while those with allylglycidyl ether and phthalic anhydride were soft. Polyester E-40 coatings were found to be strong at 600°C. without loss of elasticity or hardness after 500 hours. Coatings based on the unsaturated polyesters of allylglycidyl ether and dicarboxylic anhydride were also strong for 2 hours with a desiccant of lead and manganese resinate. Double coatings 25-35 μ thick were tested after standing at room temperature for 1 year. They showed an impact toughness of 50 kg/cm² and an elasticity of 1 mm, with no deterioration after submersion in 10% NaOH for 6 days. (Orig. art.)

(See figures.)

ENCL 1

AMERCO

29997-65 EWT(m)/EPF(c)/EPR/EWP(j)/T Pe-4/Pr-4/Ps-4 WH/RM
TRANSLATION NR: AP4047676

THEIR Sorokin, M. F.; Khinchina, E. I.

27
B

synthesis of linear polyester

SOURCE: Lakokrasochnye materialy i ikh primeneniye v promst. i tekhn.

TERM TAGS: polyesterification, linear polyester, molecular weight, viscosity, weight distribution, turbidimetry, synthesis

A new type of linear polyester is synthesized by esterification of carboxylic acids without catalyst. The polyester has a low viscosity and a high molecular weight.

After synthesis (determination of viscosity, and terminal hydroxyl and hydroxyl group determinations), an analysis was made of the structure (by turbidimetry). The polyester synthesis is carried out in the following way:

1. In the initial polymerization

2. In the final polymerization

AP404765
INFORMATION NR. AP4047676

Abstract of the synthesis of polyesters

The article discusses the synthesis of polyesters. The properties of the synthesized polyesters are analyzed. The effects of the types of epoxy compounds and dicarboxylic acids on the degree of conversion and molecular weight distribution of the polyester are shown. The molar ratio of the initial components and the temperature of the second stage of synthesis are analyzed for their influence on the molecular weight distribution of the polyesters. Orig. art. has 5 figures, 1 table and 3 chemical equations.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: OC M T

REF ID: 002

OTHER: 005

Date: 2/2

KHINCHUK, Anna Grigor'yevna

Action of penicillin on (gemoliticheskiy) streptococcus groups.

Dissertation for candidate of a Medical Science Degree.

Chair of Microbiology (head prof.S.I. Sherishorina) Saratov Medical Institute, 1948

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722020005-3

KHINCHUK, A.

"Modification of the Properties of Hemolytic Streptococci Under the Effect
of Penicillin," Zhur Mikrob, Epidem, i Immunobiol, No. 11, p 14, 1948.

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722020005-3"

KHINCHUK, A. G.

"Variability of the Hemolytic Streptococcus in
Animal Organisms Under the Influence of
Penicillin," Zhur Mikrobiol, Epidemiol i
Immunobiol, 1951, No 1

Mikrobiologiya, Vol XX, No 5, 1951.

W-24635

USSR/Medicine - Dysentery KHINCHUK, A. G.

FD 128

Card 1/1

Authors : Khinchuk, A. G. and Butomo, V. A.

Title : Some data on the modifiability of types of Hiss-Flexner dysentery bacteria

Periodical : Zhur. mikrobiol. epid. i immun. 4, 35-36, Apr 1954

Abstract : Type modifications among Flexner bacteria eliminated by children suffering from chronic dysentery, the coexistence of different types of the bacteria, and the elimination of 3-4 types within 1-2 days are reported. The effects of the culture media externally and biocenosis internally are discussed. No references are cited.

Institution : Chair of Microbiology (Head- Prof. S. I. Sherishorina) of the Saratov Medical Institute and the Laboratory of the Sanitary-Epidemiological Station of the Frunze District of Saratov (Head- A. K. Rikhter)

Submitted : August 12, 1953

A. G. KHINCHUK, A.G.
KHINCHUK, A.G.

Variability of Flexner's dysentery vacillus in the animal organism
as affected by various factors. Zhur.mikrobiol.epid. i immun. no.8;
104-105 Ag '55 (MLRA 8:11)
(SHIGELLA PARADYSENTERIAE)

KHINCHUK, A. G., KUSINA, YE. P., FEYGEL'SON, A. S., SHCHEGLOVA, M. K.

"On the mechanism of the therapeutic effect of penicillin and syntomycin
in an experiment."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists
and Infectionists, 1959.

KHINCHUK, A.O.

Controlled transformation of Görtner's bacillus into Proteus vulgaris and of Proteus vulgaris into Görtner's bacillus. Trudy Sar. gos. med. inst. 26:183-191 '59. (MIRA 14:2)

1. Saratovskiy meditsinskiy institut, kafedra mikrobiologii
(zav. - prof. S.I. Sherishorina).
(PROTEUS VULGARIS) (SALMONELLA ENTERITIDIS)

SOV/12-58-2-3202

Translation from: Referativnyy zhurnal, Elektrotehnika, 1958, Nr 2, p 220 (USSR)

AUTHOR: Tagor, P. G., Tel'nov, N. I., Khinchuk, T. A., and Blazhenkov, V. A.

TITLE: An Outfit for Recording TV Programs on Movie Film

(Ustanovka dlya zapisi televizionnykh programm na kinoplenku)

PERIODICAL: Tekhnika kina i televideniya, 1957, Nr 3, pp 34-40

ABSTRACT: The difficulty in recording TV programs from a kinescope screen on movie film is indicated, as well as possible ways of solving the problem.

Apparatus is described that was developed and built at NIKFI. The apparatus is based on an afterglow picture tube which, while the obturator is open, allows photographing both fields: the one being scanned on the kinescope screen, and the preceding one, still retained because of the afterglow effect. To secure equal exposure for all picture elements, special brightening pulses of a complicated shape are fed to the kinescope in addition to the video signals.

Illustrations: 7. Bibliography: 4 items.

Ya.I.E.

Card 1/1

GIRKO, I.P.; KHINCHUK, T.I.

Studying the possibility of using Ukrainian bentonites in the
recovery of motor oils. Bent. gliny Ukr., no.2:199-204 '58.
(MIRA 12:12)

1.Kiyevskiy avtodorozhnyy institut.
(Bentonite) (Oil reclamation)

KHINDRISTANSKIY, R.A., inzhener; TARAKANOV, V.S., inzhener.

Experimental use of metal screening for formwork. Gidr.stroi.
25 no.2:21-23 '56. (MIEA 9:8)
(Concrete construction--Formwork)

KHINDRISTANSKIY, R.A., inzh.; SHEPELEV, M.K., inzh.

Assembly-line method for the operations involved in erecting a
hydroelectric station of precast reinforced concrete.
Gidr.stroi. 31 no.3:7-11 Mr '61. (MIRA 14:4)

(Saratov Hydorelectric Power Station--Precast concrete construction)

PLOTNIKOV, Ya.Ya., inzh.; KHINEVICH, B.E.

The DZU-15 turf cutter and layer. Stroi. i dor. mash. 10 no.3:
15 Mr '65. (MIRA 18:5)

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722020005-3

PLOTNIKOV, Ya.Ya., inzh.; RADKEVICH, V.T., inzh.; TONDEL', A.I., inzh.;
KHINEVICH, B.E., inzh.

New continuous trench digger for open-cut drainage. Stroi. i dor.
mash. 10 no.3:4-6 Mr '65. (MIRA 18:5)

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722020005-3"

STOGOV, Viktor Nikolayevich, doktor tekhn.nauk; KHINEVICH, V.N., inzh., otd.
red.; LIBERMAN, S.S., red.izd-va; ANDREYEV, S.P., tekhn.red.

[Bucket loaders] Odnokovshovye pogruzochnye mashiny.
Khar'kov, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i
tsvetnoi metallurgii, 1959. 123 p. (MIRA 12:8)
(Earthmoving machinery)

KHIMEVICH, V.N., kand.tekhn.nauk

Vibration of the working parts of the grab buckets of automatic
loaders during the digging motion. Trudy KHIIT no.34:5-12
'59. (MIRA 13:1)
(Loading and unloading—Equipment and supplies)

LITVIN, Grigoriy Il'ich; VLAZNEVA, Tat'yana Griger'yevna;
KHINEVICH, V.N., kand. tekhn. nauk, dots., otd. red.;
NESTERENKO, A.S., red.

[Collection of problems on construction machines] Sbornik
zadach po stroitel'nym mashinam. Khar'kov, Izd-vo Khar'-
kovskogo univ., 1965. 50 p. (MIRA 18:7)

36-57-69-10/16

AUTHOR: Gracheva, V. P., Utina, Z. M., and Khineyko, N. P.

TITLE: Irrigation Standards for Different Climatic Conditions (Normy
osresheniya dlya razlichnykh klimaticheskikh usloviy)

PERIODICAL: Trudy Glavnay geofizicheskoy observatorii,
1957, Nr 69, pp. 71-76 (USSR)

ABSTRACT: The authors define the term "irrigation standards" as the amount of water needed to maintain the moisture content of soil at 60 to 70 percent. Consequently these standards vary with climatic and meteorological conditions. The authors analyze the interdependence of weather conditions and irrigation standards and refer to D. L. Laykhtman who in 1955 established a set of standards to be adhered to. The article contains 5 maps showing the application of these standards in the arid zones of the Soviet Union during the vegetation period. The standards are expressed in thousands of cubic meters (of water) per hectare. There are 3 figures, but no references.

AVAILABLE: Library of Congress

Card 1/1

Card 1/1

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722020005-3

KHAYNOVSKIY, Ya.S.; SEKUNDA, A.T.; KHINGIN, L.M., red.; KOVAL'SKAYA,
I.F., tekhn. red.

[Combustion chambers of gas-turbine systems working on liquid fuel; review of foreign technology] Kamery sgoraniia gazoturbinnykh ustanovok, rabotaiushchikh na zhidkem toplive; obzor zarubezhnoi tekhniki. Moskva, TsINTIMASH, 1961. 38 p.

(MIRA 15:8)

(Gas turbines)

1. BARSHEV, V. N.; KHINICH, G. V.
2. USSR (600)
4. Loading and Unloading
7. Book about automatic loaders. "Automatic loaders, traction loaders and their operation." V. N. Barshev, G. V. Khinich. Reviewed by Eng. A. A. Seslavin. Mekh. trud. rab., 7, no. 4, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

L 20806-66 EWP(j)/EWT(m)/ETC(n)-6/T IJP(c) RU/WW
ACC NR: AP6005945 (A) SOURCE CODE: UR/0191/66/000/002/0010/0011
AUTHORS: Kirilovich, V. I.; Rubtsova, I. K.; Pokrovskiy, L. I.; Khinich, R. V.
Fedorov, A. A.

ORG: none

TITLE: *Synthesis of phosphor-containing polyesters and their application in preparation of fireproof polyurethane foams* 57 B

SOURCE: Plasticheskiye massy, no. 2, 1966, 10-11

TOPIC TAGS: polyester plastic, polyurethane, foam plastic, fire resistant material, phosphorous acid, esterification

ABSTRACT: Polytransesterification of dimethylphosphorous acid (I) with polyols (pentaerythritol, trimethylolpropane, trimethylethane) or of mixed polyols and diols in various ratios, has been investigated. This work is a continuation of a study of polyphosphite synthesis by V. I. Kirilovich, I. K. Rubtsova, and Ye. L. Gefter (Plast. massy, No. 7, 20, 1963), and was undertaken to test the suitability of polyesters in imparting fire-resistant properties to polyurethane foams. Reaction of the mixture of diols and polyols with I yields polyesters. Card 1/2

UDC: 678.664-496:678.029.65

L 20806-66
ACC NR: AP6005945

having viscosities similar to those of the polyurethane foams, i.e., $\eta^{25^\circ} \leq 1000$ poise. The optimal ratio of viscosity and free hydroxyl groups in polyphosphites occurs with pentaerythritol:hexane-diol = 0.3:0.7 and pentaerythritol:diethylene glycol = 0.2:0.8. Of all polyphosphites obtained with individual polyols, polytrimethylolpropane phosphite had the most acceptable viscosity. The use of metallic sodium as a catalyst permitted lowering of the initial reaction temperature, thus preventing excessive rise of the viscosity of the product. The resulting phosphor-containing polyurethane foams were self-extinguishing and thermally stable. Orig. art. has: 3 tables.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 008

Card 2/2

BORODYANSKIY, E.A.; TSEYTLIN, I.M.; KHINICH, R.Z.

Modernization of the RS-2 rubber mixer. Kauch.i rez. 20 no.3:38-39
Mr '61.

(MIRA 14:3)

1. Nauchno-issledovatel'skiy konstruktorsko-tehnologicheskiy institut
shinnoy promyshlennosti i Omskiy shinnyy zavod.
(Rubber machinery)

SUVOROV, G.; KHINKIS, A.; CHURILIN, M.

First to win the title. Metallurg 6 no.7:27-29 Jl '61.

1. Magnitogorskiy metallurgicheskiy gombinat. (MIRA 14:6)
(Magnitogorsk--Metallurgical plants)

KHINKIS, A.

Giant at the foot of the Magnitnaya Gora. Metallurg 7 no.1:3-7
Ja '62. (MIRA 15:1)
(Magnitogorsk--Metallurgical plants)

KHINKIS, D.S.

✓ 2158. Rapid determination of nitrogen in unrefined anthracene and its refining products. L. D. Guggman, R. J. Melsched and D. S. Khinkis [Ural Inst. for the Chemistry of Carbonaceous Substances, Lab., 1955, 21 (12), 1433-1436.—The anthracene material (0.1 g) in a 50-ml Erlenmeyer flask is heated to complete dissolution with 1 ml of conc. H_2SO_4 (about 3 to 5 min.) and then small portions of finely divided $K_2Cr_2O_7$ (2-4 g in all) are added with stirring during the continued heating of the flask (about 5 to 7 min.). The heating is continued further (5 to 7 min.) until a bright-green paste is obtained. The temperature throughout should be 250° to 260° C. After being cooled the contents are transferred to a distillation flask and the NH_3 is determined by the usual method. The time taken is 15 to 20 min. for decomposition and 10 min. for distillation.
G. S. Sutro

3

6

UKRAINSKY UGLEKHIMICHESKIY INSTITUT

PM 80K

DONSKOV, V.Ye.; IVANOV, F.I.; MISHKOV, Yu.K.; MOISEYEV, P.N.; KHINKIS, L.A.;
KAMENITSER, S.Ye., kandidat ekonomicheskikh nauk, nauchnyy redaktor;
MASLOVA, Ye.F., redaktor; GOTLIB, E.M., tekhnicheskiy redaktor.

[Organization and planning of food industry enterprises; bakery,
confectionery, macaroni and food concentrate industry] Organizatsiya
i planirovanie predpriatii pishchevoi promyshlennosti; khlebopекар-
noi, konditerskoi, makaronnoi i pishchekontsentratnoi. Pod obshchei
red. V.E.Donskova. Moskva, Pishchepromizdat. Pt. 1. 1954. 460 p.
(Food industry) (MLR 8:2)

A FENKIS I A.

KHINKIS, L.A., starshiy prepodavatel'.

Means of improving the wage system for bakery workers. Trudy MTIPP
no.7:244-258 '57. (MIRA 10:12)
(Bakers and bakeries) (Wages)

DONSKOV, Vasiliy Yefimovich, dotsent, kand.ekon.nauk; ZUYEVA, Raisa Vasil'yevna, kand.ekon.nauk; KRUZHKOVA, Raisa Vasil'yevna, kand.ekon.nauk; MESHKOV, Yuriy Konstantinovich, dotsent, kand.ekon.nauk; MOISEYEV, Petr Nikitich, dotsent, kand.ekon.nauk; PONOMAREVA, Irina Andreyevna, kand.ekon.nauk; KHINKIS, Lev Akimovich, starshiy prepodavatel'; KAMENITSER, S.Ye., kand.ekon.nauk, istsegenniy nauchnyy red.; BULGAKOV, G.V., kand.ekon.nauk, retsentent; SHVARTS, V.M., inzh.ekonomist, retsentent; PRITYKINA, L.A., red.; SOKOLOVA, I.A., tekhn.red.

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Organizatsiya i planirovanie proizvodstva na predpriatiakh pishchevoi promyshlennosti. Moskva, Pishchepromizdat, 1959. 605 p. (MIRA 12:9)
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GALUSHKINA, Nina Andreyevna; SAZONOVA, Irina Danilovna; POGOSTIN, S.Z.,
retsenzent; KHIHKIS, L.A., retsenzent; FUKS, V.K., red.; SOKOLOVA,
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Tekhnicheskoe normirovaniye truda v masloshirovoi promyshlennosti.
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[Production organization and planning in food industry enterprises] Organizatsiya i planirovanie proizvodstva na predpriyatiakh pishchevoi promyshlennosti. [By] V.E.Donskov i dr. Moskva, Pishchepromizdat, 1963. 454 p. (MIRA 17:2)

YAKOVLEV, V.M., inzh.; BUTENKO, N.L., inzh.; GINZBURG-SHIK, L.D., inzh.;
YEVTYUKHOV, K.S., inzh.; KRYLOV, V.A., inzh.; MIKHEYEV, I.I.;
KHINKIS, L.M., inzh.; CHERNYAK, B.Z., kand.tekhn.nauk; MOLYUKOV,
G.A., inzh., red.; TIKHANOV, A.Ya., tekhn.red.

[Handbook for installation of industrial plant equipment] Spravochnik po montazhu zavodskogo oborudovaniia. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 828 p. (MIRA 12:12)
(Factories--Equipment and supplies)

KONDRAT'YEV, I.M.; KHINKIS, L.M.

Modernization of electric bobbins of centrifugal viscose rayon spinning machines. Khim. volok. no.2:77-78 '59.

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1. Rosglavpochipniksnabs byt pri Gosplane SSSR.
(Rayon spinning)

KONDRAT'YEV, I.M.; KHINKIS, L.M.

Newly designed free roller for the KV-150 drawing frame. Khim.
volok. no.3:69-70 '59. (MIRA 12:11)

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KHINKIS, L.M., inzh.; MARFENINA, L.S.

Using large-size roller contact bearings in rolling mill
back-up rolls. Stal' 24 no.8:765-767 Ag '64.

1. Glavnaya upravleniya po snabzheniyu i sbytu podshipnikov
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RSFSR. (MIRA 17:9)

DALEVSKIY, A.L. [Dalev's'kyi, A.L.]; EYDEL'MAN, L.S.; SHAPIRSHTEYN, Ya.A.;
KHINKIS, M.V.

Programmed proportioning apparatus for explosive and aggressive
liquid substances. Khim. prom.[Ukr.] no.1:76-77 Ja-Mr '65.

(MIRA 18:4)

SHAPIRSHTEYN, Ya.A.; KHINKIS, M.V.

Universal mobile system for adjusting the electrical networks
of secondary commutation in industrial enterprises. Energ.
i elektrotekh. prom. no.3:66-67 J1-S '62. (MIRA 18:11)

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CIA-RDP86-00513R000722020005-3

KHINKIS, M.Ya., inzh.

Improvement of the ShB-A5 boiler. Energetik 10
no.6:12-14 Je '62. (MIRA 16:3)
(Boilers)

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722020005-3"

KHIN'KIS, S. S.

(3) 1st PAGE 2 MORE INFORMATION
Information about derivative
of polyethylene, 1958, 90 p. (series: Survey plasticylene) Issued [no] 10,000
Date: Mar. 1958. Author: N. M. Tsvetkov, M. (Natalia Ivanovna) Tsvetkova
Source: Nauka, Moscow, Russia.

This booklet is intended for industrial chemists, engineers, and technicians in
industry, petrochemicals, metallurgy, tools, pharmaceuticals, electronics, electrical engineering,
metallurgy, machine-building, radio engineering, armaments, construction, high
molecular weight polymers, valvular, containers, containers, marine, and ship-building
materials.

Content: The booklet describes a new material, polyethylene produced at low
temperatures. The industrial properties and properties are described along with
the physical, chemical, and other properties of the material and its application in building
and industry. The booklet is intended for the Scientific Research Institute of
Chemical Technology, Z.V. Kostylev, Z.V. Kostyleva, Director for Polymerized Materials
and Plastics, V.P. Shchegolev, Yu. M. Pavlenko, A.A. Lomakin
S. N. Smirnov, V.D. Dzhigal, and P.I. Gorchakov, Z.V. Artobolev, Z.V. Lazarev,
V. V. Kostylev, V.L. Parfenov, and A.B. Ponomarenko. There are no references
in the book.

Source or comments:

Author:

Institution:

Ch. I. Properties of Polyethylene at Low Temperatures
Properties of polyethylene from catalyst residue and temperature
of melting

Ch. II. Properties of Polyethylene
Physical properties
Chemical stability

Mechanical properties
Plasticity and elastic limit
Aging of low-temperature polyethylene

Ch. III. Applications of Polyethylene Articles and Their Fields of
Use
Electrical insulation and protection
Chemical resistance and insulation with polyethylene insulation
Producing low-temperature polyethylene by press forming
Producing pipes by fusion
Producing plates and films of low-temperature polyethylene by
extrusion
Producing articles from polyethylene and their fields of
use
Plastic pipes and plastic

Plastic pipes and insulation fittings
Producing welding pipes at right angles
Producing welding of cables from sheets of low-temperature
polyethylene
Producing low-temperature polyethylene sheets and plates on a film-making
machine
Producing articles from low-temperature polyethylene
Fields of application of low-temperature polyethylene

Author: Library of Congress

S. S. S.

ANDREYEVA, I.N.; ARKHIPOVA, Z.V.; VESELOVSKAYA, Ye.V.; LEVINA, A.A.;
ANTOKOL'SKAYA, Ye.M.; LAZAREVA, N.P.; SAZHIN, B.I.; KHIN'KIS,
S.S.; SHCHERBAK, P.N.; GERBIL'SKIY, I.S.; LYANDZBERG, G.Ya.;
PARAMONKOVA, T.V.; PECHENKIN, A.L.; YEGOROV, N.M., red.;
SHUR, Ye.I., red.; FOMKINA, T.Z., tekhn.red.

[Low-pressure polyethylene] Polietilen nizkogo davleniya.
Izd.2., ispr. i dop. Leningrad, Gos.nauchno-tekhn.izd-vo
khim.lit-ry, 1960. 95 p. (MIRA 14:1)

1. Nauchno-issledovatel'skiy institut polimerizatsionnykh plast-
mass (for all, except Yegorov, Shur, Fomkina).
(Polyethylene)

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S/191/63/000/001/001/017
B101/B186

6.8530

AUTHORS: Matveyeva, Ye. N., Khin'kis, S. S., Tsvetkova, A. I.,
Balandina, V. A.

TITLE: Aging of polyolefins. Thermooxidative degradation of poly-
olefins

PERIODICAL: Plasticheskiye massy, no. 1, 1963, 2-7

TEXT: Films 100 μ thick were produced from high-pressure polyethylene (HPPE), low-pressure polyethylene (LPPE), polypropylene (PP), and ethylene propylene copolymer (EPC), and heated in oxygen atmosphere. In designing the test apparatus with circulating oxygen and collection of the volatile oxidation products at nitrogen temperature advantage was taken of the experience gained by J. R. Shelton, W. Z. Cox (Rubber Chem. and Technol., 26, 632 (1953)) and J. L. Bolland (Proc. Roy. Soc., 186, 218 (1946)). Adsorption of O_2 at 120-170°C was measured, the volatile oxidation products were chromatographically analyzed for H_2 , CO, CO_2 , the liquid ones for acids, esters, peroxides, unsaturated and carbonyl compounds, and

Card 1/3

Aging of polyolefins. ...

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water. The content of oxygen-containing groups and unsaturated compounds was determined in the oxidized films. The change of physicochemical properties was studied. Results: (1) Adsorption of O_2 by PP was ~750 mmoles/mole after 240 min, whereas the corresponding values were between 100 and 200 mmoles/mole for the other polyolefins. As regards stability against oxidation the polyolefins are in the order $PP < EPC < LPPE < HPPE$ and the activation energies for oxygen adsorption are correspondingly 21.8, 30.8, 31.9, and 32.7 kcal/mole. (2) The rate of degradation increases with increasing temperature, e.g., 14.0% volatile products were formed from LPPE after 4 hrs at $150^\circ C$, and 24% at $170^\circ C$. (3) Oxidation renders polyolefin films brittle and dark-colored, with some loss of their solubility in xylene. The viscosity of the xylene-soluble fraction decreases. (4) Oxidation of HPPE at $150^\circ C$ for 4 hrs yields about 4% insoluble fraction, 1.9-2.4 mmoles/mole formaldehyde, 1.4-1.5 mmoles/mole acetaldehyde, the bromine number being 3-3.6. The corresponding data for LPPE are: about 24%, 1.2-1.8, 0.9-1.4, 2-2.6. The different behavior of HPPE as compared with that of LPPE is explained by a higher content of methyl and carbonyl groups in the former. (5) $\tan \delta$

Card 2/3

Aging of polyolefins.

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of LPPE rises from 0.0004 to 0.028 at 150°C after 8 hrs (at 10³ cps),
tan δ of HPPE reaches this value after 4 hrs. Conclusion: Polyolefins
oxidize autocatalytically. There are 9 figures and 4 tables.

Card 3/3

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ACCESSION NR: AP5008363

S/0190/65/077/003/0404/0410

AUTHORS: Khin'kis, S. S.; Kreytser, T. V.; Matveyeva, Ye. N.

40

38

B

TITLE: Oxidative degradation of poly-3,3-bis-(chloromethyl) oxacyclobutane

JOURNAL: Vysekomolekulyarnyye soyedineniya, v. 7, no. 3, 1965, 404-410

APPARATUS: oxidative destruction, butane, activation energy, spectrophotometry,
infrared: PRK 4 lamp, Hilger spectrometer, IKS 14 spectrometer, IR 10

ABSTRACT: Thermo-oxidative degradation of poly-3,3-bis-(chloromethyl) oxacyclobutane was carried out in an atmosphere of nitrogen or oxygen in a closed system permitting automatic computation of oxygen expenditure and removing volatile reaction products (at -16°C). Studies were made of unprecipitated 100-μm-thick films placed in an evacuated vessel. The reaction was stopped at 100°, and the volatile products that were released during the process were measured in pressure. Activation energy was determined by the method of differential thermal analysis. The mechanism of the reaction of poly-3,3-bis-(chloromethyl) oxacyclobutane was studied in a vessel illuminated from the outside by a carbon arc lamp. The experiments were performed in both a closed system

Card 1/2

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and in a stream of oxygen (2.5 liters/hour). The temperature was kept at 30°C or below. Changes in composition and structure were studied chemically and by IR spectra. The spectra were obtained on a Hilger spectrometer with NaCl or KBr and on IKS-14 and UR-10 spectrometers with LiI windows. The effect of the energy of the thermo-oxidation can be described by the equation: $\Delta E = \frac{E}{\ln(1 - \alpha)}$. Photo-oxidative degradation follows the same laws, but the reaction rates are different. Thermo-oxidative degradation begins in a vacuum at 260°C, in oxygen and air at 100-120°C. Times for the process are 4 to 10 hours. Photo-oxidative degradation under the PRK-4 lamps is accompanied by structuration. Times are 15 to 20 hours. The authors conclude that the oxidative degradation of poly-3,3-bis-(chloromethyl) exacyclobutane takes place as a radical chemical process with degenerate branching. The activation energy is comparatively small, and the rate of degradation is proportional to the energy of the radiation.

Nauchno-issledovatel'skiy institut polimerizatsionnykh plastmass
Scientific Research Institute of Polymerized Plastics
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ENCL: 03

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OTHER: 012

NO REF SOV: 008

Card 2/2 p20